

Instruction Cum User Manual For **HI-VAC**



Dear Customer,
Thank you for selecting this versatile and need oriented suction unit.

ASSEMBLY AND GENERAL INFORMATION

To fasten it well with the base, four black hexa bolts (used as hold fast for transportation at the bottom of the unit) MUST be removed by rotating anticlockwise with the aid of a simple hand tool. Motorised pump is housed in a MS cabinet. On the platform, apart from the oil container, is a filter which is the suction inlet. Before the unit is put on, please see that,

1. The plug is connected to the grounded relevant mains outlet. In case of fluctuation, use voltage stabilizer.
2. The vacuum control knob is not loose. It must be fully tightened clockwise.
3. The lids are tightly placed on the jars and the tubes on the nozzle of the lids.
4. The oil container is full with lubrication oil No. 40.

So that there is no leakage at the nozzle-connector joint, press and twist the connector to make it snug fit. Same way while unplugging, twist and pull.

TECHNICAL

Housing: Spot Welded, Oven baked cabinet (Also available with Stainless Steel Body)

Capacity: -700 mm Hg \pm 10 regulable, flutter free vacuum control knob, 45 Ltrs / min.

Pump type: Double rotary vane pump

Jar: Wide mouthed 2 x 2 Ltrs. (Polycarbonate) with self sealing bungs and mechanical over flow safety device.

Tubing: 10 mm ID x 2 mtr (PVC)

Vacuum Gauge: Bourden type 10 cm. Dia. 0-760 mm Hg calibration.

Power: 230 V, 50 Hz, 4 \pm 0.5 Amps, 430 watts. (110 V on request)

Noise Level: 50 dB A \pm 3 Almost whispers.

Dimension & Weight: 50 x 38 x 70 cms, 40 Kg.

VACUUM AT ALTITUDES

The specified maximum vacuum refers to sea level. According to local conditions, and barometric pressure, slight deviations in vacuum reading may be noted. As a reference, the table below shows several factors, by which the indicated maximum vacuum value must be multiplied, according to the altitude of location where the measurement is carried out.

Location/maximum vacuum

Location	Sea level	1000m	2000m	4000m
Factor	1.00	0.88	0.78	0.60

ATTENTION

1. The unit can overheat if it is restarted while under vacuum. Make sure it is between 0 and 150 mm Hg
2. Always turn the power off with the power switch after job is complete or, in case of breakdown, in between the use.

GUIDELINES FOR USE:

1. LUBRICATION: The unit must be lubricated with good quality oil (Mobil oil no.40) as soon as oil container gets empty. This way not only you get good suction but good service for years together.

2. NEGATIVE PRESSURE: Before the unit is put to use, vacuum must be set at the required level. Fully tightened (clockwise) vacuum control knob means full vacuum. Even otherwise, replacing of gauze/refill is suggested every six months.

3. JARS: As the flow rate is high, 3/4th filling of jar is recommended, otherwise splash droplets might enter the filter and if not cleaned regularly might enter the pump.

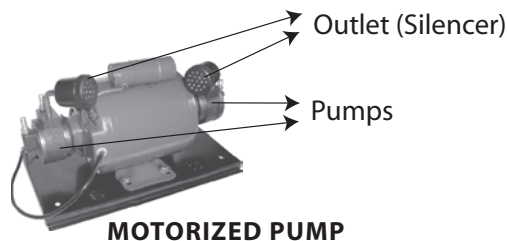
4. CLEANING: After each use, lids overflow cut-off valve, suction cannulae, catheters etc. should be cleaned thoroughly. When sterilization is necessary after infective fluid has been sucked, the jars, the lids, cut-off valve and metal cannulae can be sterilized by autoclaving and the tubing, by sterilizing solution.



FILTER



JAR

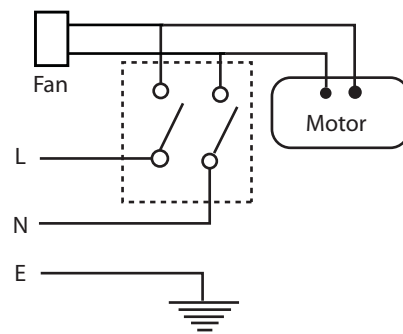
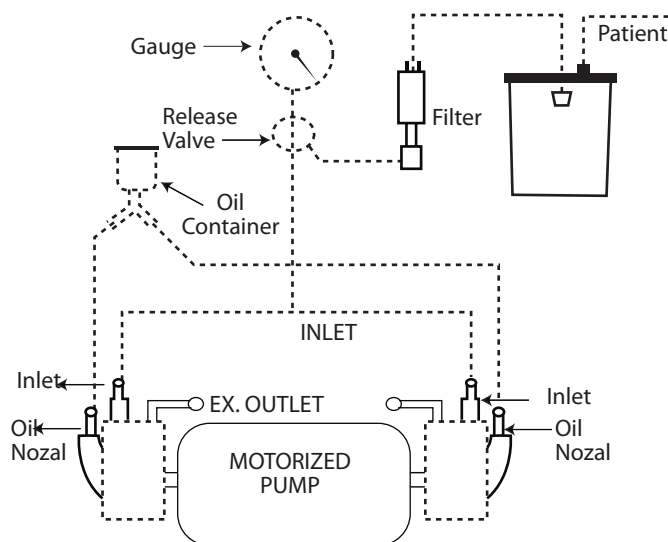


MOTORIZED PUMP

5. FILTER: Filter element (refill) **MUST** be changed after every normal day's work and immediately if wetted by froth, splash droplets or the infective material. The filter can be pulled out upwards and the cap unscrewed. Use NON-ABSORBANT COTTON wool as refill.

6. PUMP: But if accidentally the fluid enters the pump, pullout the filter and run the unit by keeping a thumb on the suction inlet for a minute or two. Unscrew and take out the pin from the vacuum control knob and with the pump still on, gradually pour, 15-20 drops of mobil oil in it. Block the inlet "OFF" and "ON" for a couple of times. Put the knob pin and the filter in their respective places. If it does not start, please consult the hospital engineer or the electrician. If this exercise is not done immediately after the accidental entry of blood in the pump, the blood will stick dry inside the pump, housing and the whole pump will have to be opened, cleaned, lubricated and set again. For this open the side door, remove plastic tubing (inlet point) and exhaust silencer (outlet points with metal point 'L' tubes). To dilute the dried blood, pour few drops of kerosene oil/diesel and make the unit on-off. After it takes a start keep the unit running and gradually pour 10-20 of mobil oil in the running unit. After say a run of 30 minutes or more put the tubing exhaust outlets and door back to its original position. The outlet point (exhaust) inside the housing can be opened cleaned and gauze/refill replaced in it. Even otherwise, replacing of gauze/refill is suggested every six months.

7. In long duration operations, if possible, put off the unit even if for a few minutes.



TROUBLE SHOOTING:

Problem	Possible source of trouble	Check/Action to be taken
Motor does Not Run	Power Supply	Voltage, power socket
	Main switch	Set at "ON"
	Electrical cord	Plug connections, damaged cord
	The blood has entered the pump. The remedy is given above under pump cleaning. If the unit makes more noise, it needs lubrication. Also clean the exhaust outlet.	
Inadequate Suction Performance	Leak within the pump or in the external suction circuit	Isolate the source of trouble by carrying out the checks outlined.
	External cause: Push-in connector O-rings/Lid gasket	Condition
	Push-in angular connectors	No Leaks at tube ends. Push in as far as stop.
	Release Valve	The Knob should be tightly placed
	Tubing	Cracks, brittle areas
	Lids	Airtight fit jars
	Jars	Condition, Possible cracked edges, hairline cracks
	Bacteria filter	Condition and absence of leaks
Vacuum gauge indicates a vacuum Pump does not suck, however	Blockage or kink in tubing within the pump or in the external suction circuit	Isolate source of trouble as follows: Pull the filter upwards, leave the suction connection open. If the vacuum gauge now indicates zero vacuum, the cause is external (Mechanical diagram given above)
	External cause: Bacteria filter, overflow valve in the lid, (float valve) push-in connectors, tubing etc.	Investigate the whole external suction circuit for blockage (s), float valve sticking, kinked tubing and rectify. If the vacuum gauge still indicates a vacuum, the cause is internal

TERMS OF WARRANTY

Anand Medicaids Private Limited warranty the high quality and workmanship of each Anand's HI-VAC for a period of one year subsequent to the date of delivery by the company. During this period, faulty material will be replaced free of charge. This warranty does not extend to components that are subject to wear and tear in the course of normal operation or due to improper treatment/maintenance as per instructions.

Further conditions in accordance with international standard IEC 601.1 item 6.8.2b.

The manufacturer is only responsible for effects on the safety, the reliability and the performance of the appliance if

- Installation, additions, adjustments, modifications or repairs are carried out by personnel authorized by the manufacturer
- The electrical installations within the room concerned satisfy the requirements laid down by IEC.
- The appliance is used in full accordance with the instruction manual which is solely a guide and no substitute for professional training. The safe and effective use of this product largely depends on the skill of the operator. We are not liable for any damages due to mishandling or improper and unauthorised use.
- The company reserve the right to change technical specifications, designations and catalogue numbers without prior notice.

Note

Ensure that your electrical wirings are well earthed with 1 line and 1 neutral phase and your voltage is between 220V 240V. 50 Hz.

Ensure that the suction unit should not be lifted above human body level.

Dispose of used product/packaging in safe manner so as not to harm stray cattle, children and environment.

WARRANTY CARD

Model No. _____

SN _____

Date of Purchase: _____

Dealer Name: _____

Stamp :



ANAND MEDICAIDS PRIVATE LIMITED

(Regd. Office) 33/16, Punjabi Bagh (Extn.)

New Delhi - 110026 [India]

Tel : +(91)-(11)-25225225/25229206/42464264

Fax : +(91)-(11)-25225062, E mail: sales@anandind.com

(Works) 1460 M.I.E., Bahadurgarh, Haryana -124507 [India]

EC REP

KALEIDOS SH. VIA PONTIOA, 4 2012, MILANO, ITALY.